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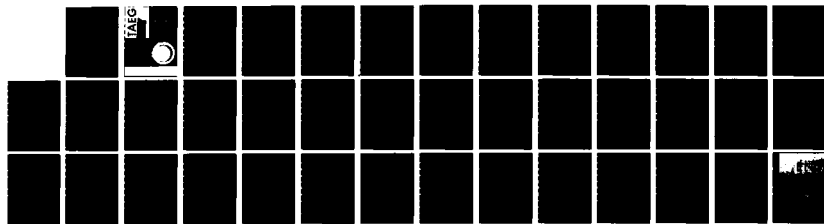
SURVEY OF THE EXTENT OF INDIVIDUALIZED INSTRUCTION IN
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AND EVALUATION GROUP (NAVY) ORLANDO FL
G S MICHELI ET AL. SEP 83 TAEG-TM-83-7

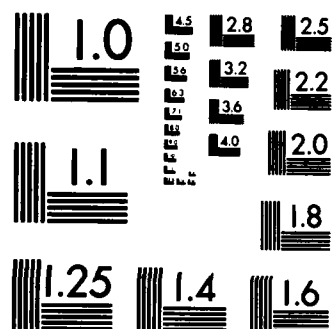
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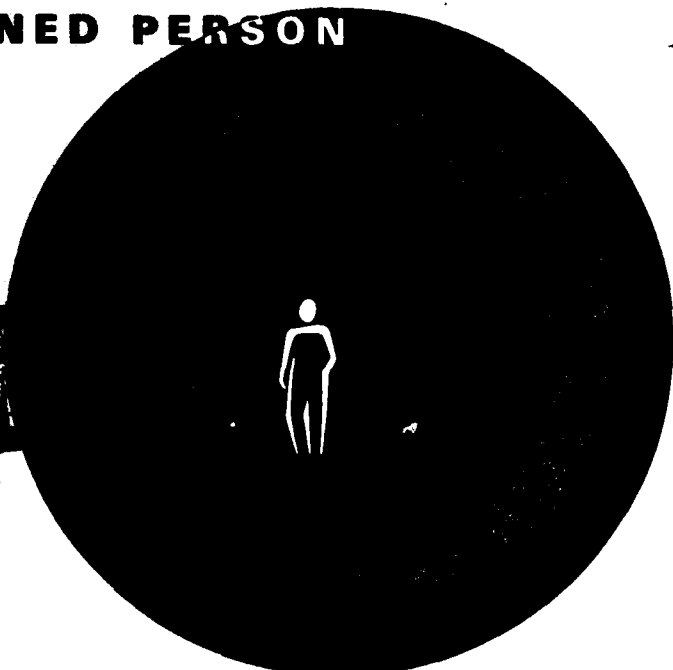
SURVEY OF THE EXTENT OF INDIVIDUALIZED INSTRUCTION IN NAVY "A" AND "C" SCHOOL COURSES

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TRAINING ANALYSIS AND EVALUATION GROUP
ORLANDO, FLORIDA 32813

Technical Memorandum 83-7

SURVEY OF THE EXTENT OF INDIVIDUALIZED INSTRUCTION
IN NAVY "A" AND "C" SCHOOL COURSES

Gene S. Micheli
Larry H. Ford

Training Analysis and Evaluation Group

September 1983

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Technical Memorandum 83-7

TABLE OF CONTENTS

<u>Section</u>		<u>Page</u>
I	INTRODUCTION.	3
	Purpose	4
	Definitions	4
	Organization of the Report.	5
II	METHOD.	6
	Sample Selection.	6
	Data Collection Instrument.	6
	Procedure	6
	Data Processing and Analysis.	7
III	RESULTS	8
IV	CONCLUSIONS	14
	REFERENCES.	16
	APPENDIX A Data Collection Instrument.	17
	APPENDIX B List of Courses Examined and Their NITRAS Descriptions. . . .	20
	APPENDIX C Four Examples of Questionnaire Responses for Courses Examined.	34

LIST OF TABLES

<u>Table</u>		<u>Page</u>
1	Types of Courses in the Sample.	8
2	Cross Tabulation of NITRAS and Questionnaire Categories	9
3	Means of Responses to Questionnaire	10
4	Percent of Time Spent on Various Activities in Lab and Theory Portions of Class.	12
5	Percent of Time Using Various Media by Method of Instruction	13

SECTION I

INTRODUCTION

The confusion surrounding the description and usage of individualized instruction (II) in Navy technical training is of some concern in the Naval Education and Training Command (NAVEDTRACOM). It is difficult to evaluate the effectiveness/efficiency of II since few Navy courses could be classified as "pure" (or strictly) II. They do not satisfy the several criteria which characterize II; namely, release of time constraints, choice of media, and instruction adapted to skill levels and characteristics of the learners. Further complication is added by the perceptions of many Navy personnel that programmed instruction (PI), computer managed instruction (CMI), and computer aided instruction (CAI) are merely forms of "self-pacing." In fact, the latter term is often substituted for II. Actually, self-pacing is only one of several sound instructional elements required for II. Consequently, there is a need to differentiate between conventional instruction (CI) and II in terms of instructional strategy, instructional delivery, and instructional media and to assess the effectiveness/efficiency of CI and II strategies in various kinds of Navy training.

Several TAEG studies have examined various issues subsumed under II. An early study (Zajkowski, Heidt, Corey, Mew, and Micheli, 1979) assessed II in Navy technical training but was limited to enlisted preparatory and to class "A" schools. Among the study conclusions were the following:

1. Generally, II is as effective as conventional instruction and frequently reduces training time.
2. The use of various aspects of II, in particular CMI, CAI, and PI, is extensive in the military and is increasing in technical training.
3. The Navy is at the forefront of the attempt to increase the efficiency of technical training through the use of II.

The report also recommended actions designed to improve the implementation of II in the Navy. Subsequently, the Chief of Naval Education and Training (CNET) tasked TAEG¹ to undertake three of the actions recommended in that report. These were:

- an analysis of the relative effectiveness/efficiency of II for different kinds of training tasks and ability levels of trainees
- an assessment of the relative cost benefits of II versus CI
- a comprehensive survey of the types and extent of II in use throughout the Navy.

Three TAEG technical reports (Corey, 1981; Hall and Freda, 1982; and Freda, Hall, and Ford, 1982) summarize the outcomes of the first two of

¹CNET ltr Code N-53 of 11 Feb 1980

Technical Memorandum 83-7

these taskings. Two themes emerged from these studies. The first was that individualized instruction is just as effective as conventional instruction for operational jobs. The second was that the individualized curricula appeared to be more efficient than the conventional for the courses examined, and the curricula were more efficiently managed by the computer than by instructors. Another common observation in these reports was that there were various meanings attached to the concept of II, and that II apparently incorporates a variety of instructional practices in Navy training. Based on this finding, the TAEG was tasked² to identify and document the range of instructional activities in courses defined as "individualized" by the NAVEDTRACOM. The ensuing report (Evans and Braby, 1983) indicated that II in its pure form rarely occurs in Navy training and that effectiveness in courses is mediated more by the extent to which good instructional practices are used than by which instructional strategy is employed (II vs CI).

This present report continues from the previous studies. It presents a survey of the types and extent of II being used in a representative sample of Navy courses.

PURPOSE

This study categorized a sample of Navy courses in terms of computer aided instruction, computer managed instruction, and programmed instruction, and reported the hours spent in various types of courses on direct student-instructor contact, with hands-on material, and in programmed instruction.

DEFINITIONS

The following definitions, used in this report, are consistent with those promulgated by CNET (CNETINST 1500.12).

Individualized Instruction (II). An instructional strategy in which all learning activities are designed to accommodate individual differences in background, skill level, aptitudes, and cognitive styles. Individualized Instruction is characterized by the following attributes:

- releasing of time constraints
- choice of instructional media
- instruction adjusted to skill levels and learner characteristics; it often employs programmed instruction.

Conventional Instruction (CI). An instructional strategy in which learning activities are directed toward a normative model of the target population characteristics and usually delivered in a group environment. It is characterized by:

- predetermined group pacing
- preselected nonvariant media
- predetermined nonvariant instruction.

These characteristics, once established, are employed with all members of the group.

²CNET 1tr Code 022 to CNTECHTRA of 5 Apr 1982

Technical Memorandum 83-7

Programmed Instruction (PI). An instructional format which presents individualized materials in a sequence of small units each of which requires an immediate response from the trainee and which also provides the trainee with immediate knowledge of results.

Programmed Instruction Text. An instructional delivery system which employs programmed instruction.

Computer Managed Instruction (CMI). An instructional management system in which a computer is employed to prescribe a series of instructional materials for individual trainees. Usually associated with II, it may include the capability for record keeping, testing, counseling, and selecting various media for the delivery of instruction.

Computer Aided Instruction (CAI). An instructional delivery system in which a computer system is used to provide instruction and where there is an ongoing interchange of stimulus and reaction between the computer and trainee. When a CMI capability coexists within the host computer system, the computer system serves both a media and management function.

Instructor Managed Instruction (IMI). An instructional management system in which the instructor prescribes a series of instructional materials for individual trainees. It is usually associated with the delivery of II and may include the capability for record keeping, testing, counseling, and selecting various media for the delivery of instruction.

ORGANIZATION OF THE REPORT

In addition to this introductory section, the report contains three other sections and three appendices. Section II describes the sample selection, the data collection instrument, and the procedure for data collection. Section III presents the results of the study. Section IV contains a discussion of the study findings. Appendix A contains the data collection instrument used for the study. Appendix B is a list of the sample of courses examined in the study and their Navy Integrated Training Resources and Administration System (NITRAS) descriptions. Appendix C contains examples of questionnaire responses for courses examined in the study.

SECTION II

METHOD

SAMPLE SELECTION

A 25 percent random stratified sample (N = 623) was selected from 2,491 "A" and "C" School courses. The sampling unit was the NITRAS Course Data Processing (CDP) number.

The 2,491 A and C courses were stratified using Type of Course by Method of Instruction by DOD Skill Code. For the DOD Skill Code only the first digit of the code was used but officer and enlisted codes were kept distinct. Thus, 17 Skill Codes, 4 Methods of Instruction, and 14 Type of Course categories were identified. All empty categories were discarded. Categories with four or more occurrences were separated from those with three or less. Samples of 25 percent of each category with four or more occurrences were drawn randomly. The number to sample from each category was decided as follows:

- divide the number in the category by 4
- if the result is an integer, randomly select that number of courses from the category; if the number has a decimal, then round up or down to the nearest integer if the decimal is .75 or .25, respectively; if the decimal is .5, then round up half the time and down half the time, again randomly
- take all categories with three or fewer occurrences and combine them into one category; from that category randomly select 25 percent of the total occurrences, applying the rounding rules stated above.

The result was a list of 623 courses that represented the 2,491 A and C courses without sampling bias.

DATA COLLECTION INSTRUMENT

A questionnaire approach was selected in order to collect information on a large number of courses. A draft of the questionnaire was reviewed by each Assistant Chief of Staff (ACOS) and other staff members at Chief of Naval Technical Training (CNTECHTRA) and by instructors and the Curriculum and Instructional Standards Officer at Service School Command, Orlando. Based on inputs from these reviews, the questionnaire was put in final form. The questionnaire sent to each course in the sample is shown in appendix A.

PROCEDURE

The questionnaire was mailed to the address for each Course Data Processing (CDP) number in the sample with the request that an instructor of the course or someone knowledgeable about how the course is conducted

Technical Memorandum 83-7

complete the form. The questions asked for the number of hours spent in particular activities or in using particular materials or equipment. Upon completion, the questionnaire was returned to the TAEG for data analysis.

DATA PROCESSING AND ANALYSIS

The raw questionnaire data were entered into a computer file and were processed and analyzed using the statistical software package SPSS (Nie, Hull, Jenkins, Steinbrener, and Bent, 1975; Hull and Nie, 1981). The specific procedures used included FREQUENCIES, CROSSTABS, and BREAKDOWN.

SECTION III

RESULTS

Of the 623 questionnaires mailed out, 499 (80.1 percent) were returned. Some of the returned questionnaires were for discontinued courses or courses that had not started yet, resulting in 445 (71.4 percent) usable questionnaires. The distribution of the types of courses in the final sample is shown in table 1.

TABLE 1. TYPES OF COURSES IN THE SAMPLE

TYPE OF COURSE	SAMPLE	
	NUMBER	PERCENT*
C7 E-5 and above	5	1.1
C5 Enlisted Medical	1	0.2
C3 Enlisted Communications	6	1.3
C2 Officer	20	4.5
C1 Enlisted	342	76.9
	374	84.0
A3 Enlisted Communications	5	1.1
A2 Officer	7	1.6
A1 Enlisted	33	7.4
AP Enlisted Preparatory	21	4.7
AA Apprenticeship	5	1.1
	71	15.9
TOTAL	445	99.9

*The percent column total is 99.9 due to rounding error.

The NITRAS classifies courses as "self-paced," "CMI," "self-paced and CMI," or "group-paced." Table 2 shows how the courses in the sample were classified by NITRAS and how they were described by the questionnaire respondents. NITRAS classified 7 percent (3.4 percent, 0.2 percent, and 3.4 percent, respectively, for SP, CMI or SP and CMI) of the courses as having "some II." (See appendix B for NITRAS descriptions of each course included in the sample.) However, the questionnaire results showed that 18.2 percent of the courses were reported to have some form of individualized instruction (II). That is, 2.6 times more courses were reported as having some form of II than the NITRAS classification of having some II. Also, of the 31 courses that NITRAS does classify as having some II, 8 courses (25.8 percent) were reported by the questionnaire respondents as having no II at all. Of the 414 courses in the present sample classified by NITRAS as

Technical Memorandum 83-7

group-paced, 58 (14 percent) were reported by the questionnaire respondents as having some self-pacing. Clearly, the classification of a course by method of instruction in NITRAS does not always agree with the perceptions of individuals who teach the course.

TABLE 2. CROSS TABULATION OF NITRAS AND QUESTIONNAIRE CATEGORIES

QUESTIONNAIRE CATEGORIES	NITRAS CATEGORIES				
	SELF- PACED	CMI	SELF-PACED AND CMI	GROUP PACED	BOTH (SP & GP)
NO II	5	0	3	356	364 (81.8%)
SOME II	10	1	12	58	81 (18.2%)
	15 (3.4%)	1 (0.2%)	15 (3.4%)	414 (93%)	445 (100%)

The mean responses, in terms of time utilized (in hours), to each item in the questionnaire are shown in table 3, broken down by NITRAS-classified method of instruction. (See appendix C for examples of responses to the questionnaire items for courses examined.³) The column labeled SP in this table refers to all three types of courses (self-paced, CMI, and both self-paced and CMI) classified by NITRAS as self-paced. The column labeled GP refers to NITRAS-classified group-paced courses, and the column labeled BOTH reports the means for all courses in the sample. Clearly, courses classified as self-paced report more hours of self-paced instruction, and those classified as group-paced report more hours of group-paced instruction. However, neither NITRAS classification necessarily represents a pure type; self-paced courses do report some group-paced instruction, and vice versa.

Self-paced courses use computer-managed instruction, computer-assisted instruction and programmed instruction texts to a greater extent than group-paced courses. Also, these instructional media are used more in theory portions of self-paced courses than in laboratory portions of self-paced courses. In general, the use of instructional media is greater in SP courses than in GP courses.

³Four examples from 445 usable questionnaires are shown in appendix C. A summary of questionnaire responses for each course examined in the study is available from TAEG upon request.

TABLE 3. MEANS OF RESPONSES TO QUESTIONNAIRE

	THEORY PORTION OF COURSE						LAB PORTION OF COURSE						TOTAL COURSE		
	Self-Paced Instruction			Group Instruction			Self-Paced Instruction			Group Instruction					
	SP	GP	BOTH	SP	GP	BOTH	SP	GP	BOTH	SP	GP	BOTH	SP	GP	BOTH
(In Mean Hours)															
1. How many hours are there in each portion of the course?	67	3	8	39	139	132	68	5	9	27	117	111	201	264	260
2. How many hours are spent on self-paced or individualized instruction managed by an instructor?	45	2	5	2	9	8	55	3	7	20	15	15	123	29	35
3. How many hours are spent in computer managed instruction (CMI)?	32	4	6	0	0	0	13	0.2	1	13	0.2	1	45	4	7
4. How many hours are spent in computer assisted instruction (CAI)?	6	0	0.4	0	0	0	3	0.3	0.5	0	0.3	0.3	10	0.6	1
5. How many hours are spent with programmed instruction texts?	57	0.5	4	2	2	2	26	0.1	2	0.8	1	1	86	4	10
6. How many hours are there of direct individual student contact with an instructor?	33	1	3	19	62	59	28	3	5	9	55	52	90	121	119

TABLE 3. MEANS OF RESPONSES TO QUESTIONNAIRE (continued)

	THEORY PORTION OF COURSE				LAB PORTION OF COURSE								TOTAL COURSE			
	Self-Paced Instruction		Group Instruction		Self-Paced Instruction				Group Instruction							
	SP	GP	BOTH	SP	GP	BOTH	SP	GP	BOTH	SP	GP	BOTH	SP	GP	BOTH	BOTH
(In Mean Hours)																
7. How many hours are spent using instructional media such as programmed texts, workbooks, audiovisual equipment, or computer assisted instruction?	57	1	5	6	43	40	47	2	5	18	14	14	127	59	64	
8. How many hours are spent using hands-on material such as lab equipment or simulators?	10	0	0.7	1	6	7	77	5	10	31	111	105	120	122	121	

Technical Memorandum 83-7

Group-paced courses report more hours of direct individual student contact with an instructor in both the theory and laboratory portions of a course. Also, the lab portions of group-paced courses show more hours using hands-on equipment than do the lab portions of self-paced courses. The use of hands-on equipment is concentrated in lab portions for both types of instruction.

The percent of time spent on various instructional activities is shown in table 4. Courses designated SP reported, on the average, that 63 percent of the theory portion of the course was self-paced. The lab portions of SP courses were 72 percent self-paced and 28 percent group-paced. The percent of time spent on other activities can be determined by inspection of the table. Generally, courses designated GP reported very low percentages of self-pacing and computer managed instruction. Both types of courses report about the same percent of time spent on direct individual student contact with an instructor. SP courses report a much higher percentage of time spent using various instructional media.

The percent of total class time spent using various instructional media broken down by method of instruction is shown in table 5. These percentages are only for those courses that reported some time spent using a particular method of instruction in a given part of the course (e.g., self-paced lab). As might be expected, GP courses show a low rate of usage of all these instructional media except for hands-on equipment in group-paced labs. CAI is used to some extent but only in those courses that are classified as both CMI and self-paced. Programmed instruction texts are used in all three types of self-paced instruction. The use of hands-on equipment is fairly widespread in the laboratory portions of all types of instruction.

TABLE 4. PERCENT OF TIME SPENT ON VARIOUS ACTIVITIES
IN LAB AND THEORY PORTIONS OF CLASS

QUESTIONNAIRE CLASS ACTIVITIES*	NITRAS METHOD OF INSTRUCTION					
	SP			GP		
	THEORY	LAB	COMBINED	THEORY	LAB	COMBINED
Self-Paced Instruction	63	72	67	2	4	3
Group-Paced Instruction	37	28	33	98	96	97
Self-Paced Instruction Managed by an Instructor	44	79	61	8	15	11
CMI	30	27	22	3	.3	2
Hours of Direct Individual Student Contact With Instructor	49	39	44	44	48	46
Instructional Media	59	68	63	31	13	23

*These are from items in the questionnaire (appendix A)

TABLE 5. PERCENT OF TIME USING VARIOUS MEDIA BY METHOD OF INSTRUCTION

NITRAS CATEGORIES	INSTRUCTIONAL MEDIA											
	CAI						PI					
	SP THEORY	GP THEORY	SP LAB	GP LAB	SP THEORY	GP LAB	SP THEORY	GP THEORY	SP LAB	GP LAB	SP THEORY	GP LAB
Self-paced	0	0	0	0	32	0	0	18	1	7	0	35
CMI	0	0	0	0	100	0	0	0	0	8	0	0
SP & CMI	14	0	14	0	75	0	32	0	0	12	7	13
Group-Paced	0	0	0.2	1	3	3	0.5	1	0	4	4	83

SECTION IV

CONCLUSIONS

The classification of a course as "individualized instruction" is often "in the eyes of the beholder." The data clearly show that the perceptions of persons responding to the questionnaire differ from the NITRAS classification of the courses.

There is, however, internal consistency in the NITRAS. According to our questionnaire, NITRAS-classified SP courses have more self-paced instruction, while NITRAS-classified GP courses have more group-paced instruction. This was true for both theory and lab portions of the courses.

While the NITRAS classifications of method of instruction are generally accurate, they do not necessarily represent pure types. Courses designated as group-paced are primarily group-paced but some may have significant portions of self-paced instruction. Conversely, courses designated as self-paced are mostly self-paced, but are by no means entirely self-paced. In general, the NITRAS classifications represent only the predominant method and do not exclude other methods of instruction. However, in some cases the NITRAS classification is completely at odds with the reported method of instruction.

Many courses labeled by NITRAS as SP, CMI, a combination of SP and CMI, or GP actually were "mixed"; i.e., both SP and GP. This is probably due to "a pragmatic philosophy within these courses of using instructional practices which match learning tasks and that a single instructional strategy will probably not be suitable for all tasks within a given course" (Evans and Braby, 1983, p. 32).

According to the definition of II presented earlier, II is characterized by (1) release of time constraints, (2) choice of instructional media, and (3) instruction adjusted to skill levels and learner characteristics. However, the study results suggest (as well as actual practice in the NAVEDTRACOM) that the NITRAS categories of SP, CMI, and a combination of SP and CMI depend mainly on self-pacing as the distinguishing characteristic of II.

Some differences exist in instructional techniques between group and self-paced instruction that may not be due entirely to pacing. For example, group-paced courses show more direct individual student-instructor contact while self-paced courses show more use of various instructional media. Differences in instructional technique that are not tied to pacing could confuse attempts to determine the effectiveness of one method of instruction compared to another.

In summary, the present study shows that the NAVEDTRACOM classification of courses (by NITRAS) does not correspond with the way personnel involved with the courses view the courses. This is in large measure due to the fact that the complexity of the courses cannot be adequately described in the simple "pure" terms of the NITRAS. Some courses are "mixed": that is, have

Technical Memorandum 83-7

some elements of self-pacing and group-pacing. In addition, the NITRAS categorization of II depends mainly on the feature of self-pacing. To more adequately describe training courses, it is recommended that the complete definition of II (not merely release of time constraints) be applied.

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Technical Memorandum 83-7

APPENDIX A

DATA COLLECTION INSTRUMENT

Technical Memorandum 83-7

CDP _____

Name of Course _____

Name of Person Providing Information _____

Rating/Rate/Rank _____

Title _____

AV Phone Number _____

Please fill in the following blank spaces with the applicable number of hours.

	THEORY PORTION OF COURSE		LAB PORTION OF COURSE		TOTAL COURSE
	Self-Paced Instruction	Group Instruction	Self-Paced Instruction	Group Instruction	
1. How many hours are there in each portion of the course?	_____	_____	_____	_____	_____
2. How many hours are spent on self-paced or individualized instruction managed by an instructor?	_____	_____	_____	_____	_____
3. How many hours are spent in computer managed instruction (CMI)?	_____	_____	_____	_____	_____
4. How many hours are spent in computer assisted instruction (CAI)?	_____	_____	_____	_____	_____
5. How many hours are spent with programmed instruction texts?	_____	_____	_____	_____	_____
6. How many hours are there of direct individual student contact with an instructor?	_____	_____	_____	_____	_____

Technical Memorandum 83-7

7. How many hours are spent using instructional media such as programmed texts, workbooks, audiovisual equipment, or computer assisted instruction?
8. How many hours are spent using hands-on material such as lab equipment or simulators?

THEORY PORTION OF COURSE		LAB PORTION OF COURSE		TOTAL COURSE
Self-Paced Instruction	Group Instruction	Self-Paced Instruction	Group Instruction	
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

Technical Memorandum 83-7

APPENDIX B

LIST OF COURSES EXAMINED AND THEIR
NITRAS DESCRIPTIONS

Technical Memorandum 83-7

COURSE SAMPLE LISTING

COURSE NO.	CDP	COURSE TYPE	MOD	SKILL CODE	SHORT TITLE
0580A	G115	A1	L	0	GMM A
0581A	G001	A1	L	1	SCAT MOD 1
00750	G340	A1	L	1	SCAT MOD 4
00750	G344	A1	L	1	SCAT MOD 6
0580A	G03X	A1	L	1	ETA-FOREIGN
00750	G343	A1	L	1	SCAT MODS 3-6
0580A	G020	A1	L	1	EW-A 3M/TEST
0580A	G04A	A1	L	1	ETSU-PMT
0580A	G420	A1	L	1	ETA ACT COMM
0580A	G425	A1	L	1	ETA COMM TN
0580A	G435	A1	L	1	ET COM EQUIP FUN
0580A	G428	A1	L	1	ETA ACT RADAR
0580A	G430	A1	L	1	ETA-RADAR-ETSC
0580A	G437	A1	L	1	ET RAD EQUIP FUN
0580A	G370	A1	L	1	ETG-A2
0580A	G003	A1	L	1	TM BASIC TECH
42851	G015	A1	L	1	SURF ST CLASS A
42851	G118	A1	L	1	SOQ23 PAIR OPSAS
42851	G401	A1	L	1	BQ02 BAS DPR
42851	G00N	A1	L	1	SURF STA FOREIGN
0581A	G081	A1	B	2	RM A SHORE
42087	G540	A1	L	2	OS-A
05871	G387	A1	L	4	FA A
05871	G119	A1	P	4	IT A-1
05871	G107	A1	L	5	DP A
05871	G553	A1	P	5	RP A
0581A	G073	A1	L	6	ICA
0580A	G480	A1	P	6	BT CL A COO PSI
0580A	G040	A1	P	6	GS A MECHANICAL
05871	G286	A1	L	7	IMA
05871	G290	A1	L	7	DU A
05871	G291	A1	L	7	UT A
0581A	G125	A1	L	8	ED A
05871	G240	A1	L	1	MS A
05871	G240	A1	B	1	AFTA AX A1
05871	G521	A1	P	1	AVA AQ A1
05871	G472	A1	P	4	TD A1
05871	G501	A1	B	6	AG A1
0581A	G578	A1	L	6	AD A1
0581A	G021	A1	L	6	H2 AD ENTRY LEVE
0581A	G571	A1	L	6	EAG AD ENTRY LEV
0581A	G576	A1	L	6	SB AD ENTRY LEVE
05871	G517	A1	L	6	H3 AD ENTRY LEVE
05871	G459	A1	L	6	AME A1
05871	G506	A1	L	6	ASM (A1) MERGED
05871	G041	A1	L	6	AD A1
0581A	G565	A1	L	6	MN A
0581A	G566	A1	L	2	SNIP RM A SCHOOL
0581A	G566	A1	L	5	SNIP SK SHORE
0581A	G566	A2	L	13	NAVAL INTEL OFF

COURSE SAMPLE LISTING

STAFF UTC	CDP	COURSE TYPE	MODE	SKILL CODE	SHORT TITLE
02001	001H	A2	L	14	COMM OFF FOREIGN
0617A	0439	A2	L	14	ADVANCED NUC PWR
0610A	0220	A2	L	14	SH SALV DIV OIT
02710	0257	A2	L	15	MIL JUST/LAWYER
02741	0230	A2	L	18	BQC - CORP
02741	0497	A2	L	18	BQC ASST END USE
03082	9795	A2	L	12	EAG PIPREP
03082	9928	A2	L	12	EAG MARINE EWO
03093	002N	A2	L	14	AMO A2 MOD
03082	0101	A3	P	1	CTM A
03082	0302	A3	P	2	CTI A PREP
30921	0321	A3	L	2	CTI A2 RUSSIAN
30921	0329	A3	L	2	CTI A2 COMMON BL
30921	0122	A3	L	2	CTI A2 HEBREW
03082	001F	A3	L	2	CTO A PHASE II
42080	003L	AA	L	7	AA TRAINING STUD
42084	0392	AA	L	7	AA TRAINING
42085	003R	AA	L	7	SA TRAINING STUD
42085	003S	AA	L	7	FA TRAINING STUD
42084	0398	AA	L	7	FA TRAINING
0580A	5242	AP	L	0	E E/H
00750	0540	AP	L	0	SS ENL BAS TM
31914	0481	AP	L	0	SUR NUCENL INDOC
0581A	001P	AP	D	1	BE/E-AT
05931	001T	AP	D	1	BE/E-AQ
0580A	001X	AP	D	1	BE/E-AX
0581A	002F	AP	D	1	BE/E-AC
05931	002K	AP	D	1	BE/E-AGE
03093	0230	AP	D	1	BE/E-AT
03093	0234	AP	D	1	BE/E - AV NONNAV
0580A	0248	AP	D	1	BE/E-FTG
0580A	0216	AP	D	1	BE/E ET NF
0581A	0209	AP	C	1	BE/E-DG
0581A	0273	AP	D	1	BE/E-EM
0581A	0277	AP	D	1	BE/E-STS
05931	0306	AP	D	1	BE/E-EW
05931	0310	AP	D	1	BE/E-FTG
05931	0314	AP	D	1	BE/E-GMF ASROC
0581A	0352	AP	D	1	BE/E-RM(SS)-GYO
0581A	0300	AP	D	1	BE/E-EW CTM
0581A	0305	AP	D	1	BE/E-NON A SCHL
0580A	0309	AP	D	1	BE/E-GMF ASROC
05931	0403	AP	D	1	BE/E ET ACT
05931	0407	AP	D	1	BE/E-ET RAD-ACF
0581A	0411	AP	D	1	BE/E-ET RAD-4YU
0580A	0415	AP	D	1	BE/E ET OTH
0581A	0440	AP	D	1	BE/E-ET (SU) EW
05931	0543	AP	D	1	BE/E-GSM
05931	0550	AP	D	1	BE/E TM ADVANCE
0581A	0501	AP	L	1	JOBS ELECT

Technical Memorandum 83-7

COURSE SAMPLE LISTING

STAFF UIC	CDP	COURSE TYPE	MODE	SKILL CODE	SHORT TITLE
0581A	0503	AP	L	5	JOB: AD CLERICAL
0580A	0202	AP	B	0	PROP ENG BAS MM
0581A	004R	AP	L	0	JOB: GAS TUR ENG
0703A	001L	AP	C	9	ART RTC GL
03093	0213	AP	C	0	AFUN AMH
03093	0217	AP	B	0	AFUN ASM
03093	0221	AP	B	0	AFUN AX
03093	0226	AP	B	0	AFUN AD
03094	0231	AP	P	9	AVTUN ABH
0581A	0470	AP	L	0	SEAMAN C/C
0580A	0016	AP	L	4	PE SCH INDOC
03093	0297	AP	P	4	NSI MP
0581A	0404	AP	L	9	SAUDI FST TWO
0580A	3405	C1	L	0	INST BASIC
08437	8499	C1	L	0	INST BASIC
0580A	3720	C1	L	0	IND INST TECH
0703A	4062	C1	L	0	RECRUIT CO CDR
0581A	260P	C1	L	1	2M REPAIR PROGRA
01797	3244	C1	L	1	AN/SRC-20/21
01797	3453	C1	L	1	AN/UCC-1 MAINT
01797	3052	C1	L	1	AN/URT-23 MAINT
00750	3191	C1	L	1	COMM EXP CMB MA
03092	533X	C1	L	1	WRT-7 CMB MA
0581A	544U	C1	L	1	CUDIXS MAINT
0581A	4114	C1	L	1	AN/SYG-702 MAINT
03154	8080	C1	L	1	WRT-4 CMB MA
03290	4409	C1	L	1	LHA MM&TG MAINT
03154	0200	C1	L	1	SUB DIG COMM EQ
03154	8053	C1	L	1	RCVR CMB MA
03154	8055	C1	L	1	ANT/COUP CMB MA
03290	4202	C1	L	1	RF MAINT 1427
08437	0385	C1	L	1	TRI ECS O/M LVL2
01797	8755	C1	L	1	AN/USC-34 MAINT
08437	038U	C1	L	1	TRI ECS RPL LVL1
08437	038Y	C1	L	1	TRI ECS SUPP DM
08437	0390	C1	L	1	TRI ECS CMT INTR
08437	039G	C1	L	1	TRI ECS ANT SS M
0581A	3507	C1	L	1	AN/URN-20 MAINT
01797	0223	C1	L	1	AN/APX-72 MAINT
03154	341U	C1	L	1	BRD-7 CMB MA
03154	3700	C1	L	1	TYPE 18 CMB MA
03154	017F	C1	L	1	BPS-15 CMB MA
03094	0100	C1	L	1	SLQ-32 TACOPS
03094	017A	C1	L	1	SLQ-17 EQUIP OPS
03094	015B	C1	L	1	WLR-1 PMS
03094	010F	C1	L	1	SLQ-32 ECM
03094	412K	C1	L	1	AN/SLQ-22V MAINT
03094	411M	C1	L	1	ULQ-6C MAINT
01797	425G	C1	L	1	AN/URN-25 MAINT
03094	020A	C1	L	1	TACI/OUTR:UYK 20

COURSE SAMPLE LISTING

STAFF UTC	CDP	COURSE TYPE	MODE	SKILL CODE	SHORT TITLE
00750	023U	C1	L	1	BLD-1 IDES CMLMA
35412	406W	C1	L	1	AN/SPC-54 MAT
04619	472X	C1	L	1	TER 55B MOD8 DIT
01797	7877	C1	L	1	RDRSM
04619	4809	C1	L	1	SPG-510/DIG
0581A	340G	C1	L	1	AN/SPS-20C
01797	350S	C1	L	1	AN/SPS-55 MAINT
03290	4398	C1	L	1	SPG-55B MOD 8
0581A	408G	C1	L	1	AN/SPS-49 MAINT
0581A	4581	C1	L	1	AN/SPS-65 MAINT
03290	8042	C1	L	1	3DRDRMSPS52A
39029	035D	C1	L	1	AN/SPY-1A RDR
01090	027E	C1	L	1	OTO 76MM MK 75
42087	801G	C1	L	1	GMT 5/54 42 9/10
03154	4777	C1	L	1	FGS 112/2 MAINT
0580A	4610	C1	L	1	COMP MK 47 MOD 8
42087	2907	C1	L	1	FGS MK02 MAINT
0580A	3017	C1	L	1	ASROC LAUN 1G
03290	143A	C1	L	1	GMLS MK 79 MOD 11
03290	1381	C1	L	1	BAS PT DET MCI
05031	3657	C1	L	1	GUEROC MK 28 IM
03290	472Y	C1	L	1	TER MK 76 / 8
03290	348T	C1	L	1	TARMK74-475/8700
04619	403U	C1	L	1	PT 88
04619	403Y	C1	L	1	POL 11T
03154	323T	C1	L	1	PTCOS 148-0 THED
00750	5055	C1	L	1	FGS88-1 PLATFORM
00750	5060	C1	L	1	FGS 88-1 DCC M/I
00750	5058	C1	L	1	FGS88-1 MULTI EQ
04619	409K	C1	L	1	FT88T
04619	409H	C1	L	1	MTR1
03290	409R	C1	L	1	CGNDS CSMHC PH 2
03290	409S	C1	L	1	CSMMC PHA-1 PH2
03437	409P	C1	L	1	TRIDENT FTB RTH
03437	411N	C1	L	1	MTR1 7/4 AD TTRY
03437	411R	C1	L	1	ECG 13/0 GROOMEN
03154	4310	C1	L	1	MT 3017 CONVERTING
03290	4584	C1	L	1	MK-23 TAS
04619	018W	C1	L	1	FT POL TRIRK PRF
05031	3663	C1	L	1	TORP MK 14 IM
05031	3671	C1	L	1	TORP MK 48 IM
05031	032M	C1	L	1	TORP MK40 MOD 1M
02003	3574	C1	L	1	SGO 14 MAINT
00750	5103	C1	L	1	SGGA
42351	345J	C1	L	1	SGG 20AXR MAINT
42351	5079	C1	L	1	UWECG MK 111 MAT
42351	7782	C1	L	1	SGS85/SGA13 MAT
42351	304X	C1	L	1	SGG23 PATR MAINT
03401	4387	C1	L	1	SONAR SGR15 OPTB
42351	4480	C1	L	1	ROG15 CMB MA

Technical Memorandum 83-7

COURSE SAMPLE LISTING

START DATE	CDF	COURSE TYPE	MODE	SKILL CODE	SHORT TITLE
04010	4053	C1	L	1	OSP ST
08437	040H	C1	L	1	BQGG O/M/C LEV-2
08437	040N	C1	L	1	BQGG INTR O/M 1
08437	040S	C1	L	1	BQGG GRP-A HEPT
00750	321Y	C1	L	1	FC 113 C/E CM
42853	4487	C1	L	1	BLR14 CMB MA
00750	7808	C1	L	1	DGR21 CMB MA
00750	408U	C1	L	1	MK 81 ANAL MAINT
42853	4537	C1	L	1	BQGG/SA BAS MA
42853	4241	C1	L	1	WQO 2/2A OPR/MAI
08401	8064	C1	L	1	SUSUS ADP MAINT
08437	040Y	C1	L	1	TRI CWS LEVEL 3
08200	1155	C1	L	1	TERMINAL MAINT
08200	8060	C1	L	1	BASIC UYA-4V
08200	1098	C1	L	1	RD 203 MAINT
08200	1414	C1	L	1	RD 231 MAINT
08200	3094	C1	L	1	TAR CMPTR 152-1
08200	4897	C1	L	1	UYA5/C MAINT
08200	3431	C1	L	1	UYK7 SONGS PIPE
08200	4390	C1	L	1	U-1700 MAINT
08200	4408	C1	L	1	LHA ITAWDS MAINT
08200	401W	C1	L	1	UYK7 FFG7 P PC
08200	401X	C1	L	1	UYA-4 DISPLAY
41072	4107	C1	L	1	OU-83
41072	0108	C1	L	1	UYH 2 DMS
08437	041E	C1	L	1	TRI CCS LEVEL 3
08437	041K	C1	L	1	OJ 172 ADV MANIT
08437	041P	C1	L	1	OJ 32G STD MAINT
08437	041T	C1	L	1	OJ172 MAINT INTR
08437	041X	C1	L	1	MSDC TRI ADV M
04010	0137	C1	L	1	SYR 1 MAINT TRNG
35023	0347	C1	L	1	AEGIS COMP FUND
08200	3428	C1	L	1	CRYP KWT 37 MAI
57063	5116	C1	L	1	TTY 28 ASR MAINT
08200	3419	C1	L	1	STEAMVALVE MAI
35412	4725	C1	L	1	CRYP KW PG MAINT
35023	4070	C1	L	1	CRYP HY 7 MAI
08114	5061	C1	L	1	UGC 20H/25 CMB M
08200	470N	C1	L	1	CRYP KG40 TAM
35023	4008	C1	L	1	CRYP KW 7 MAI
35412	417W	C1	L	1	CRYP KY 28 MAINT
00750	3403	C1	L	1	NAVTEC TP1 C37CL
04010	7787	C1	L	1	AIDS
04010	4727	C1	L	1	NTM C
04010	4012	C1	L	1	OSP NA
08222	5200	C1	L	1	CNC PROCESSOR 2
08114	8108	C1	L	1	LURAN WPN 3/4 AT
08114	2735	C1	L	1	MARDAN T/M 1
08437	0211	C1	L	1	ESGM/NAVAIDS CON
04010	0231	C1	L	1	NTM REPL

COURSE CATALOG LISTING

STAFF UIC	CDP	COURSE TYPE	MODE	SKILL CODE	COURSE TITLE
03322	4236	C1	L	1	BRT CNC CONV
03322	4288	C1	L	1	BRT SING CONV
08437	042M	C1	L	1	SING 2-7 CALIB
03302	4234	C1	L	1	BRT ARDS CONV 1
08437	042R	C1	L	1	BON-ED MAINT
08437	048B	C1	L	1	BRN/SONAR CONV
08437	042W	C1	L	1	PROCESSOR 1
08437	042Y	C1	L	1	I/O CONTROLLER
08437	043A	C1	L	1	MTU MAINTENANCE
08437	0472	C1	L	1	NAV SVS LAB
00750	8815	C1	L	1	SING 1 G CMB MA
0580A	470G	C1	L	1	THA CCTV DFT
0580A	8730	C1	L	1	ICC CCTV MAINT
0581A	3600	C1	L	2	COMSYS TECH
00750	503P	C1	L	2	SND ANAL VTB RED
00750	540P	C1	L	2	PRD 77WY/PRGADP
03302	8870	C1	L	2	WLR 1G CMB MA
03154	5054	C1	L	2	WLR G CMB MA
03154	4533	C1	L	2	ESM TECH G37 CI
03154	4535	C1	L	2	ESM TECH G38 CI
00750	027Y	C1	L	2	WLG4(NRDT)CMBMA
31941	4615	C1	L	2	DSIAPP
35412	406X	C1	L	2	DCS SATCOM OPR
04105	8743	C1	L	4	OMSP OPERATOR
02040	1036	C1	L	4	OOD RETR NAVY
03018	5251	C1	L	4	BUDS TNG
04118	419W	C1	L	4	SPGC PHASE 2 MED
04118	4200	C1	L	4	SPGC PHASE 2 DML
35436	2110	C1	L	4	DIVER SECOND
00750	2023	C1	L	4	SCUBA DIVER
42445	2302	C1	L	4	SATDIVER
0618A	4632	C1	L	4	MUSIC NAVRES
02040	1024	C1	L	4	DC REP PARTY LDR
0581A	3031	C1	L	5	PN DC1
02750	3030	C1	L	5	COURT REPORTER
00254	4709	C1	P	5	ASSEMBLY PROGRAM
0581A	3151	C1	L	5	SK INDET DUTY
01707	3923	C1	L	5	SUADPS 207
04107	4016	C1	L	5	ADV INFO SPEC
35412	4721	C1	L	6	DIAL CUN EX TECH
01707	7301	C1	L	6	PLOTTER NCMOD1A
03154	4180	C1	L	6	IC PACKAGE
01707	4815	C1	L	6	PLOTTER PT 512/S
0581A	4074	C1	L	6	LVCS(SFC 1)MAINT
00750	2602	C1	L	6	CAMS MK
03322	521R	C1	L	6	INT AN SYS CMB M
0580A	0210	C1	L	6	MK G DRE MAINT
03007	5746	C1	L	6	NWAM
03013	0207	C1	L	6	NWAWM
01707	403M	C1	L	6	BT MN PROP MNT

Technical Memorandum 83-7

COURSE SAMPLE LISTING

STAFF UIC	CDP	COURSE TYPE	MOD	SKILL CODE	SHORT TITLE
01000	4100	C1	L	G	GENREG ABC MAINT
0581A	3203	C1	L	G	APS MAINT
01000	4315	C1	P	G	GR ABC CONS OPR
02003	4100	C1	L	G	HAG ABC CONS OPR
57063	4404	C1	B	G	HAG ABC CONS OPR
0581A	4720	C1	L	G	LHA CSC MAINT
01707	0100	C1	L	G	VALVE MAI
01707	0310	C1	L	G	AUX TURB MAINT
01707	0300	C1	L	G	AIR COMP MAINT
01707	0470	C1	L	G	FDB MAINT
01707	047M	C1	L	G	ME / LO PUR MAIN
0581A	8300	C1	L	G	LHA ADV APS OPER
0580A	0300	C1	L	G	SESEC
0580A	3104	C1	L	G	EN/GM 5077/045
00750	3211	C1	L	G	SEN/SCIN AUX TRG
31054	0100	C1	L	G	CLIG 02 GEN O/M
0580A	4820	C1	L	G	1182 PROP TECH
03154	8120	C1	L	G	7LIG 02GEN O/M
0580A	4022	C1	L	G	SEITG 501 MAINT
03154	8120	C1	L	G	SENDS1/801FCMBMA
0580A	415N	C1	L	G	FTG-7 10MM PH 1
0580A	4150	C1	L	G	FTG-7 CCS OPS
0613A	4150	C1	L	G	FTG HOT PLT MAIN
0580A	2070	C1	L	G	DDA 10V149 SSDGM
0580A	030X	C1	L	G	FTG-7 AUXELECTSYS
02007	1300	C1	L	G	NPPD REACTOR
02000	1310	C1	L	G	NPPD MECHANICAL
02000	1324	C1	L	G	NPPD LAB
01707	4800	C1	L	G	EL MOTOR REWIND
01707	0100	C1	L	G	ELECT CONT DEV
0580A	0510	C1	L	G	GYRO TECH ELEC
00750	5441	C1	L	G	GYRO MK10 CMB MA
0580A	8040	C1	L	G	TYPE 18 PERI REP
00757	5300	C1	L	G	DSRV OPERATOR
0580A	0300	C1	L	G	FTG-7 DEG MAINT
00103	3370	C1	L	7	BASIC WELDING
00103	337M	C1	L	7	NNO WELDING
0581A	3200	C1	L	7	NDT UTSTYLR INSP
0581A	3510	C1	L	7	PRECISION GRND/BAL
05800	515A	C1	L	7	MACH TOOL OP
05800	3300	C1	L	7	EA-CONST INSP
0581A	3101	C1	L	7	AIR COND RETRIG
0581A	4070	C1	L	7	GEN ACR OP MAINT
0581A	4070	C1	L	7	GE-CABLE SPlice
0581A	000M	C1	L	7	ED/BLAST/RECERT
01707	7400	C1	L	8	MS MANAGEMENT
0581A	4010	C1	L	8	SHIP'S STORE MGT
70004	0100	C1	L	8	PS
01707	3400	C1	L	8	LAUNDRY/DC SUPRV
0581A	7520	C1	L	8	BARBER SHIPD

COURSE SAMPLE LISTING

STAFF NO	CDP	COURSE TYPE	MODIF	SKILL CODE	SHORT TITLE
GB115	2336	C1	L	1	MIN COMPON REP
GB115	2574	C1	L	1	MIN COMPON REP
GB115	4736	C1	L	1	MIN COMPON REP
GB115	4140	C1	L	1	MOD RPR INST TRA
GB115	4140	C1	L	1	MOD RPR INST TRA
GB115	4198	C1	L	1	AN/APX-115 SEA
GB115	300P	C1	L	1	ARRCO RADIO RECV
GB115	7623	C1	L	1	ARC 131 REC TRAN
GB115	3010	C1	L	1	ARALO UHF/ADF IN
GB115	7776	C1	L	1	AN/ARC-12 RADIO
GB115	4196	C1	L	1	RTG48/COR TRANSC
GB115	7507	C1	L	1	APN-154 RDR DEAC
GB115	7614	C1	L	1	APN-130 RDR NAV
GB115	4158	C1	L	1	APN141 RDR ALT
GB115	4170	C1	L	1	ARN52 FACAN
GB115	7629	C1	L	1	ARN52 FACAN
GB115	4816	C1	L	1	APN-171 RDR ALT
GB115	3503	C1	L	1	ASN41 NAV COMP
GB115	4161	C1	L	1	APN 153/V/NAV
GB115	7961	C1	L	1	APN 171/V/ ALT
GB115	5970	C1	L	1	ASQ-10 MAG DETEC
GB115	4163	C1	L	1	AN/APX-70A ITF
GB115	7920	C1	L	1	AN/APX-70A ITF
GB115	4164	C1	L	1	APX-72 RADAR
GB115	7616	C1	L	1	APX-72 RADAR
GB115	7975	C1	L	1	AN/ALQ76 INT MAI
GB115	3552	C1	L	1	ALQ100 CNTRMRG
GB115	3024	C1	L	1	ARAG3 RECV DEC
GB115	4785	C1	L	1	KY 532B/533B ITF
GB115	350K	C1	L	1	RTS42/A RT INT
GB115	4175	C1	L	1	INC NAV SYS INT
GB115	414A	C1	L	1	AN/ALQ-12C INTER
GB115	242A	C1	L	1	ANARN84 TAC REC
GB115	402Y	C1	L	1	ANARN84 TAC REC
GB115	301K	C1	L	1	ALR45 CNTRMEA REC
GB115	316D	C1	L	1	ASQ PULSE DECOD
GB115	321B	C1	L	1	ALR50 RDR INT
GB115	035X	C1	L	1	INERTIAL PLAT IN
GB115	027V	C1	L	1	ANARC114 RDO SET
GB115	2835	C1	L	1	ASQB1/V MAG ANOL
GB115	4300	C1	L	1	ANAGM18/ANAGM20
GB115	3740	C1	L	1	AN/AYK2 NAV COMP
GB115	413Y	C1	L	1	AN/AKI-22V TELEM
GB115	4172	C1	L	1	ASA27A COMPT INT
GB115	344A	C1	L	1	E2C DET/DIS SYS
GB115	4122	C1	L	1	APA125A IND INT
GB115	4124	C1	L	1	APX7 RAD REC SYS
GB115	400P	C1	L	1	ASA16 SYS MAI/I
GB115	302X	C1	L	1	ASA50 INT MAI
GB115	400P	C1	L	1	P3AB WLP SYS DRG

Technical Memorandum 83-7

COURSE SAMPLE LISTING

STAFF DTC	CDF	COURSE TYPE	MOD	SKILL CODE	SHORT TITLE
GB115	4210	C1	L	1	AGA-77/77 475 INT
GB115	400R	C1	L	1	P3C AV SYS TECH
GB115	400T	C1	L	1	ARC101 IF INT
GB115	400V	C1	L	1	P3C COMM/NAV
GB115	400Z	C1	L	1	AG120V FLT REC
GB115	4244	C1	L	1	P3C UPDATE 1 ORG
GB115	344K	C1	L	1	SEA APS110 RDR
GB115	408K	C1	L	1	IP-1214/AA INTER
GB115	3825	C1	L	1	ACABCL/KACU L/W
GB115	304N	C1	L	1	A7L COMM NAV ID
GB115	7410	C1	L	1	APN100 DOP RDR
GB115	7914	C1	L	1	A7AB ATT HEADING
GB115	4701	C1	L	1	APG 120 RDR SET
GB115	4802	C1	L	1	A7C/L WEPT SYS SP
GB115	7994	C1	L	1	F4J CNI/ECM ORG
GB115	4020	C1	L	1	RF4B ASG-88 CNI
GB115	4930	C1	L	1	F14A ELECTION SYS
GB115	3508	C1	L	1	AGE WEPT SYS TECH
GB115	4820	C1	L	1	ALQ93/ALM100C
GB115	203Y	C1	L	1	ALM117 DIG TEST
GB115	344N	C1	L	1	USH17 RECORDER
GB115	414M	C1	L	1	EA CB I-CAP COMM
GB115	8427	C1	L	1	AN/ALM 117 DIGIT
GB115	8431	C1	L	1	CV2435 AYAG CONV
GB093	4115	C1	L	1	SPN-35A
GB093	4080	C1	L	1	FPN-30
GB093	400K	C1	L	1	SPN-44
GB093	4075	C1	L	1	MATC COMM REP
GB093	4596	C1	L	1	TPX 42 CATCCDAIR
GB093	022X	C1	L	1	FPN-03 PAR
GB115	8445	C1	L	1	AN/APS-125 RADAR
GB115	300H	C1	L	1	APM225 MOD ANA
GB115	3500	C1	L	1	APM375 MINI-SAGE
GB115	4720	C1	L	1	ASM401 MINI-SAGE
GB115	400P	C1	L	1	APG110 RDR SET
GB115	7911	C1	L	1	APG120 RDR INT
GB115	4370	C1	L	1	AWG10A MCS INT
GB115	410T	C1	L	1	AN/AWG-10A IN MT
GB115	415V	C1	L	1	F-4J AN/AWG-10A
GB115	8349	C1	L	1	ANAWG10A MISSILE
GB115	8880	C1	L	1	AN/AWG-10A CONTL
GB115	7503	C1	L	1	F4 MISSILE CONT
GB115	3408	C1	L	1	ANAWM23 AWG0
GB115	3380	C1	L	1	AWM23 CONT DISP
GB115	339P	C1	L	1	AWM23 COMP TEST
GB115	3755	C1	L	1	SH-3 AN/AGS-13
GB115	305N	C1	L	1	ASM175 TEST CON
GB115	4189	C1	L	1	E20/C INFIL MUN
GB115	4187	C1	L	1	E20 DATA/PRO ORG
GB115	5828	C1	L	1	AN/ASG-155 CMPTR

Technical Memorandum 83-7

COURSE LIST

START FILE	CDP	COURSE TYPE	MODE	SERIAL CODE	SHEET TITLE
03115	4876	C1	L	1	ANALYST 12/77
03115	2525	C1	L	1	USM247 OPERATOR
03115	4608	C1	L	1	USM247 ONE INE MA
03115	4547	C1	L	1	ANUSM422/77 DUEP
03115	022M	C1	L	1	ANUSM47 ANALYST
03115	4111	C1	L	1	USM403 HATS/OPS
03115	5274	C1	L	1	AVA 1 VI DIS/177
03115	4632	C1	L	1	AWM15 INE MAINT
03115	7537	C1	L	1	RE4 CAMERA INT
03096	3584	C1	P	4	MUPIC
03096	401L	C1	P	4	PIEDU LAB TECH
03115	4681	C1	L	5	GEI MAT MANAGER
02773	3330	C1	L	5	PARMAI C1
03093	3611	C1	L	5	DAC C1
03115	3729	C1	L	6	CR46 FLEO SYS
03115	7541	C1	L	6	RE4 AC MLCR MAI
03115	031M	C1	L	6	J 72 GL R/10
03115	7403	C1	L	6	158 LNGS INT/CLR
03115	7396	C1	L	6	1130PS/408 INT
03115	4637	C1	L	6	1400 CH 400 LNG
03115	4295	C1	L	6	158GLG INTERMED
03115	312W	C1	L	6	CR46 FELD MECH
03115	330W	C1	L	6	CR46A/D P/P ORG
03115	2482	C1	L	6	P3 TUGA10/14 ORG
03115	3678	C1	L	6	WR27 APH INTER
03115	3370	C1	L	6	ACA7E/36AG P/P
03115	7408	C1	L	6	A7E POWER PLANTS
03115	7404	C1	L	6	18 P/P SYS ORG
03115	313N	C1	L	6	AVXA 1407 ENGINE
03115	1830	C1	L	6	1130P414 LNG CLR
03094	7776	C1	P	6	NP71117
03115	4706	C1	L	6	ANUS47/77 TWR INT
03115	3233	C1	L	6	ACNS17 30/32 INER
03115	2477	C1	L	6	AJ15A RM/REL INT
03115	2739	C1	L	6	GEI CUS1 INT MAJ
03115	1702	C1	L	6	GEI 3 AL/1702 SY
03115	1299	C1	L	6	GEI AUTO STAB EQ
03115	1777	C1	L	6	1153 ALC ORG MAI
03115	1701	C1	L	6	1153 RTRVREL SYS
03115	4004	C1	L	6	GEA HYD/AL ORG
03115	5831	C1	L	6	P3 PERSON A/P TECH
03115	7040	C1	L	6	P3 INTE FLEO
03115	2483	C1	L	6	GE175 FLEO SYS
03115	7796	C1	L	6	A4 AJ137 BA ORG
03115	341N	C1	L	6	A4 FLEO/17NEE ORG
03115	3325	C1	L	6	AC A7E AND HYD3
03115	7401	C1	L	6	AC FLEO SYS ORG
03115	3787	C1	L	6	AW20710 ALC INT
03115	4633	C1	L	6	A7E TWR ENVER
03115	4670	C1	L	6	A7E HYD/17NEE SYS

Technical Memorandum 83-7

COURSE CATALOG LISTING

STAFF UTC	CDP	COURSE TYPE	MOBT	SKILL CODE	COURSE TITLE
03115	7440	C1	L	0	F4B/J A/T HYD
03115	7308	C1	L	0	F7R/F4B/J ADC INT
03115	7020	C1	L	0	ASAB2 ALCG INT
03115	7413	C1	L	0	F4 DATA LINK SYS
03115	3897	C1	L	0	F4 FLEC SYS.ORG
03115	7423	C1	L	0	AJBT7/ASN70
03115	5887	C1	L	0	RF36 FLEC ORG
03115	3288	C1	L	0	T2 HYD FLIGHT CT
03115	2324	C1	L	0	T2B/C F71 SYS
03115	4444	C1	L	0	F14A ADV FLEC
03115	4445	C1	L	0	F14A AF HYD SYS
35270	4270	C1	L	0	NDITECHNICIAN
03115	4711	C1	L	0	F3 AIR COND/PRES
03094	2802	C1	L	0	ALRE C13
03115	0270	C1	L	0	20MM POINT SYS
03115	7700	C1	L	0	A-4 ARMAMENT
03115	7444	C1	L	0	F4 ARM/WRN CONT
03096	3530	C1	P	0	PIER
03115	8340	C1	L	0	F3 ASN123 INTERM
03115	8550	C1	L	0	A18 MAINT TRNG
42140	0118	C1	L	0	5"54 MK45 OP&M
42007	8903	C1	L	1	ASCUMM MAINT TLC
42037	9284	C1	L	1	RSPE
01000	4531	C1	L	1	TWS MAINTENANCE
42352	0123	C1	L	1	ITG7COMSYS TT II
02003	5030	C1	P	2	INTER MORSE CODE
03401	8038	C1	L	2	SUNAR RING FRED
42352	400W	C1	L	2	ASAC-BASIC
42037	4470	C1	L	2	ASAC NTDS
42037	4512	C1	L	2	ASAMUD DATA PROC
42037	1124	C1	L	2	NTDS OPER PROG
02503	3110	C1	L	0	MSWEEP ELECT
02503	3109	C1	L	0	EN PACKARD DIES
01707	1822	C1	L	7	MARCOUPOCOOPER
01020	3050	C1	L	1	RDR SPG SBA MAI
03175	3487	C1	L	1	FIELD CALIBRATN
42352	2925	C1	L	2	A10 SUPERVISOR
42037	5280	C1	L	2	NAVWAR OP SFLC/C
42032	2626	C1	L	2	CIC WATCH SUPER
42037	1303	C1	L	2	NTDS INPUT CORE
42032	0109	C1	L	2	CG NTDS INPUT
42032	0108	C1	L	2	LAMP'S 110 MNCN
01020	0108	C1	L	0	PUET
01020	4703	C1	L	0	GYRO MK 27
03115	0340	C1	L	0	ONEI RAMADAN
03124	2400	C1	L	0	CM SCUT COURSES
42032	5410	C1	L	0	SEA CADET TRNG
75270	0333	C1	L	3	BRITLES/TRNG
42032	2838	C1	L	0	NAVRES/DRILLS WU
01020	0357	C2	L	12	DUAC

Technical Memorandum 83-7

COURSE SAMPLE LISTING

STAFF UIC	CDP	COURSE TYPE	MODE	SKILL CODE	SHORT TITLE
42087	032K	C2	L	12	FTG 7 WEPS OFF
03154	0177	C2	L	12	SWSPOLARISWEPOFF
04019	0373	C2	L	12	TARTAR OFF ADV
04019	419B	C2	L	12	SWS COM C4 WEPS
04019	419F	C2	L	12	SWS WEPS OFF C4
39029	034W	C2	L	12	AEGIS C/S OFF
04019	428L	C2	L	12	SWS NAV OFF CONV
03415	0345	C2	L	13	IMAGERY INTERP
0760A	0205	C2	L	14	CB OPS SP/INTS
02061	0194	C2	L	14	COMM OFF FLT
02085	130R	C2	L	14	NPPD-OFFICER
0580A	8415	C2	L	14	FOOW CERT
03190	020X	C2	L	14	FTG7 ENG OFF
03190	8492	C2	L	14	SWO DH CMBT SYS
0610A	0217	C2	L	14	HEO2 CROSS TRA
04105	8742	C2	L	15	DMSP INT/ANAL
03018	205L	C2	L	15	CB CIVACT TM ODT
04105	9623	C2	L	17	DISASTERPREP OFF
02741	413R	C2	L	18	UADPS-SP
03236	0103	C2	L	18	TRANS MGMT
03094	4404	C2	L	12	ADUI WEST
03221	4413	C2	L	17	CINEMATOGRAPHY
42087	1224	C2	L	12	NTDS DATA UTIL
42087	9281	C2	L	12	STAFF EWO
42087	9579	C2	L	12	CIC OFFICER INT
42852	9585	C2	L	12	RES CICWD INTERM
42087	271H	C2	P	12	NON-NATO CIC WD
03013	9364	C2	L	12	NU WPN EMP PLANN
02603	0151	C2	L	14	M/S ENG OFF
42851	9363	C2	L	12	JR FOREIGNOFFASW
42852	9382	C2	L	12	TAO
42852	0106	C2	L	12	NTDS USER CORE
42087	808R	C2	L	12	CV NTDS UTIL
03013	011U	C2	L	12	CTTC
03013	537C	C2	L	11	NWPN SPEC BRIEF
30920	3484	C3	L	1	CTM GSQ 7G MAT
30157	3652	C3	L	1	STRAWHAT MAINT
30921	4321	C3	L	1	CTM STREAMLINER
30921	401H	C3	L	1	SPEC PRINTER II
30921	8787	C3	L	1	AN/UYA-7 MAINT
32695	2056	C3	L	2	CTT INT ELINT
03082	0310	C3	L	2	CCSDC PH II
32695	4482	C3	L	2	CTT INT HEBREW
00849	2136	C3	L	5	CTR GYK/UYK3 PRO
03018	3596	C5	L	4	SPEC OPER TECH
05931	3670	C7	P	1	TDRP MK 4G TEG
32695	4402	C7	L	2	CT SR MIL SUPVR
00702	0280	C7	L	2	CW ADVANCED OPR
42145	273K	C7	L	5	3M SYS COORD
05971	460A	C7	L	6	CM-J

Technical Memorandum 83-7

COURSE SAMPLE LISTING

STAFF UIC	CDP	COURSE TYPE	MODE	SKILL CODE	SHORT TITLE
05971	541X	C7	L	7	DU J
05971	400X	C7	L	7	ED J
03093	4511	C7	L	1	TD C7
03093	4515	C7	L	C	AME C7
03111	024C	C7	L	1	HARPOON FAM OFF
03111	024G	C7	L	1	RSNF MK XII AIMS
03111	024L	C7	L	1	RSNF OMEGA OPS
03111	024Q	C7	L	1	RSNF WGN 2 MA II
03111	024U	C7	L	1	RSNF MK19 LEV II
03111	024Y	C7	L	1	MK309 FCS LEV I
03111	025C	C7	L	1	UGN 4 SSS LEV II
03111	025G	C7	L	1	RSNF WGC2A MA II
03111	025L	C7	L	1	RSNF MK75 LEV II
03111	025Q	C7	L	1	RSNF SP555 MA II
03111	025U	C7	L	1	RSNF START (MOD)
03111	42C8	C7	L	1	AN/SLQ32 FAM/OPS
03111	42C4	C7	L	1	RSNF CAS LEV II
03111	4272	C7	L	1	RSNF MK92 LEV II
03111	427G	C7	L	1	CIWS MAINT LEV I
03111	8C17	C7	L	G	RSNF PET INDOC
03111	8C21	C7	L	G	RSNF CNTL PROP
03111	8C25	C7	L	G	RSNF MTU DIESEL
03111	8C29	C7	L	G	RSNF CNTL SYS G

APPENDIX C

FOUR EXAMPLES OF QUESTIONNAIRE RESPONSES FOR COURSES EXAMINED⁴

⁴A summary of questionnaire responses for each course examined in the study is available from TAEG upon request.

Technical Memorandum 83-7

RECORD NUMBER --> 005
 CDP --> 544L
 TYPE OF INSTRUCTION --> L
 TYPE OF COURSE --> C1
 SKILL CODE --> 101

	THEORY		LAB		TOTAL
	SELF-PACED!	GROUP	SELF-PACED!	GROUP	
1	0000	0327	0000	0713	1040
2	0000	0070	0000	0100	0170
3	0000	0000	0000	0000	0000
4	0000	0000	0000	0000	0000
5	0000	0000	0000	0000	0000
6	0000	0070	0000	0100	0170
7	0000	0000	0000	0000	0000
8	0000	0050	0000	0663	0713

RECORD NUMBER --> 006
 CDP --> 6262
 TYPE OF INSTRUCTION --> B
 TYPE OF COURSE --> AP
 SKILL CODE --> 551

	THEORY		LAB		TOTAL
	SELF-PACED!	GROUP	SELF-PACED!	GROUP	
1	0113	0000	0011	0006	0130
2	0113	0000	0011	0006	0130
3	0113	0000	0011	0006	0130
4	0006	0000	0001	0000	0007
5	0059	0000	0000	0000	0059
6	0113	0000	0011	0000	0124
7	0113	0000	0011	0006	0130
8	0000	0000	0011	0006	0017

RECORD NUMBER --> 007
 CDP --> 6213
 TYPE OF INSTRUCTION --> C
 TYPE OF COURSE --> AP
 SKILL CODE --> 000

	THEORY		LAB		TOTAL
	SELF-PACED!	GROUP	SELF-PACED!	GROUP	
1	0049	0000	0005	0001	0055
2	0000	0000	0005	0001	0006
3	0049	0000	0000	0000	0049
4	0000	0000	0000	0000	0000
5	0049	0000	0000	0000	0049
6	0000	0000	0000	0000	0000
7	0049	0000	0005	0000	0054
8	0004	0000	0005	0000	0009

RECORD NUMBER --> 008
 CDP --> 6221
 TYPE OF INSTRUCTION --> B
 TYPE OF COURSE --> AP
 SKILL CODE --> 000

	THEORY		LAB		TOTAL
	SELF-PACED!	GROUP	SELF-PACED!	GROUP	
1	0000	0049	0000	0005	0054
2	0000	0004	0000	0005	0009
3	0000	0000	0000	0000	0000
4	0000	0000	0000	0000	0000
5	0049	0000	0000	0000	0049
6	0000	0000	0000	0000	0000
7	0049	0000	0005	0000	0054
8	0004	0000	0005	0000	0009

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